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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VUONG, QUOCHIEN B

ART UNIT

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2618

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/709,928	<b>Applicant(s)</b> JOHNSON ET AL.	
	<b>Examiner</b> Quochien B. Vuong	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-21 are objected to because of the following informalities: claim 1 should start with "A communication system ..." not "What is claimed is:". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-21 recite the limitation "the transmission of the transmitter (1)." in claim 1, lines 6-7. There is insufficient antecedent basis for this limitation in the claim

Claims 4 and 5 recite the limitation "the first output (16) of the receiver (2)" and "the first input (13) of the transmitter (1)." in claim 4, line 4 and lines 5-6, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claims 6-10 recite the limitation "the second input (11) of the transmitter (1)" in claim 6, lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the positioning I/O unit (4)" and "the navigation data" in claim 11, lines 3 and 4, respectively. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 4, 14, 15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Bridle et al. (US 6,163,680).

Regarding claim 1, Bridle et al. disclose a communication on the same RF frequency with several moving participants (figure 1, references 10, 12, 16, 18) that are each equipped with a communication device for exchanging information having a transmitter (figure 3, reference 47) and receiver (figure 3, reference 48) characterized by a method, for detecting free transmission periods which control the transmission of the transmitter (figure 3, reference 47; col.4 lines 27-28 and col.4 lines 35-44).

As to claim 4, Bridle et al. disclose means for detecting transmission periods by a transmission detector (figure 3, reference 44) is that its input is connected to the first output of the receiver (figure 3, reference 48) and its output is connected with the first input of the transmitter (figure 3, reference 47; col. 4 lines 32-35).

As to claim 14, Bridle et al. disclose means to exchange information between moving participants (figure 2, references 22, 24, 26, 28, 30 and 32; col. 4 lines 6-13), characterized in that the appearance of transmission of other moving participants will be supervised and in the absence of such transmission of own information will be transmitted (col.4 lines 27-51).

As to claim 15, Bridle et al. disclose the transmission signal will be sent within the transmission frame that is defined over the time basis and the sending signal of other participants could be received, within such a window of time and the possible transmission of other participants can be received and detected and in the absence of such receiving signals the window of time will be used for the own transmission (col. 5 line 52 to col. 6 line 36).

As to claim 17, Bridle et al. disclose each participant will make use of its own transmission frame unsynchronized as long as there is no other transmission received from another participant within this predictable tune frame (col. 5 line 53 to col. 6 line 36).

As to claim 18, Bridle et al. disclose each participant transmits periodically and the received signals of minimum of one or more participants will be used for a possible adjustment of the synchronization of the transmission frame (col. 5 line 52 to col. 6 line 36).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridle et al. (US 6,163,680) in view of Ekman et al. (US 5,960,355).

As to claims 2,11 and 16, Briclle et al do not disclose the information is positioning data. In an analogous art, Ekman et al disclose transmission information is positioning data (figure 3, reference 370; col. 9 lines 13-18). Ekman et al disclose a third output of the receiver is connected to the positioning I/O unit (figure 3, reference 372), which could forward the navigation data of the other participants for further processing (col. 9 lines 13-18); characterized in that navigational data will be sent as information (col. 9 lines 13-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the position data of Ekman et al. to the information in the communication system of Bridle et al. for transmission position information.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bridle et al (US 6, 163,680) in view of Reed (US 3,774,215).

As to claim 3, Bridle et al do not disclose the moving participants are ships. In an analogous art, Reed discloses moving participants are ships (figure 1, references 40 and 42, col. 5 lines 4-5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the ships of Reed to the communication system of Bridle et al. in order to provide location information for the ships.

10. Claims 6,12,19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridle et al (US 6,163,680) in view of Raith (US 5,930,706).

As to claims 6,12 and 19, Bridle et al disclose method for the time basis of each moving participant only depends on a minimum of one relevant participant within the receiving range (figure 2, col. 4 lines 9-18). However, Bridle et al do not disclose synchronizing the time basis. In an analogous art, Raith discloses synchronizing the time basis (col. 9 lines 50-56). Raith discloses further the synchronization unit provides the means for weighting from the receiver and received transmissions with defined factors for correcting the synchronization error (col. 13 lines 43-48 as set forth in claims 12 and 19). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the synchronizing the time basis of Raith to the communication system of Bridle et al. in order to synchronize the transmission.

As to claim 21, Bridle et al disclose TDMA (time division multiple access) methods with a number of transmitting and receiving windows of time could be used as transmission frame (figure 6, col. 5 lines 54-61).

***Allowable Subject Matter***

11. Claims 5, 7-10, 13, and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Roos et al. (US 4,751,701) disclose TDM collision detector

Fullerton (US 6,882,301) discloses time domain radio transmission.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quochien B Vuong/  
Primary Examiner, Art Unit 2618